Connected Corridors

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Topic: 2. Cooperative ITS Deployment Challenges
SIS27-G: Enabling interaction between traffic management and mobility services

22nd ITS World Congress
Bordeaux, France
5 to 9 October
2015

TOWARDS INTELLIGENT MOBILITY
Better use of space

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Integrated Corridor Management meets Connected Traveler

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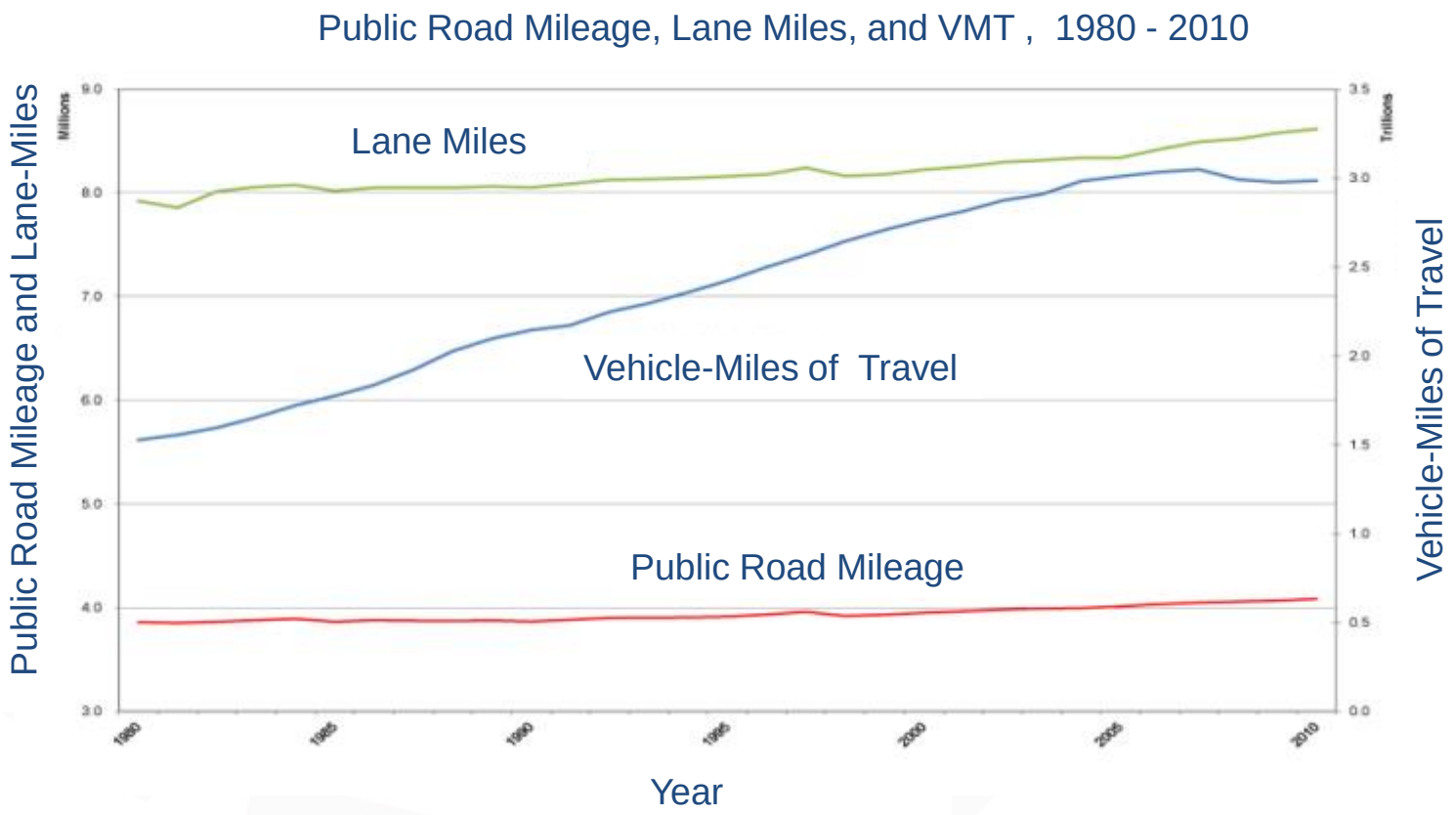
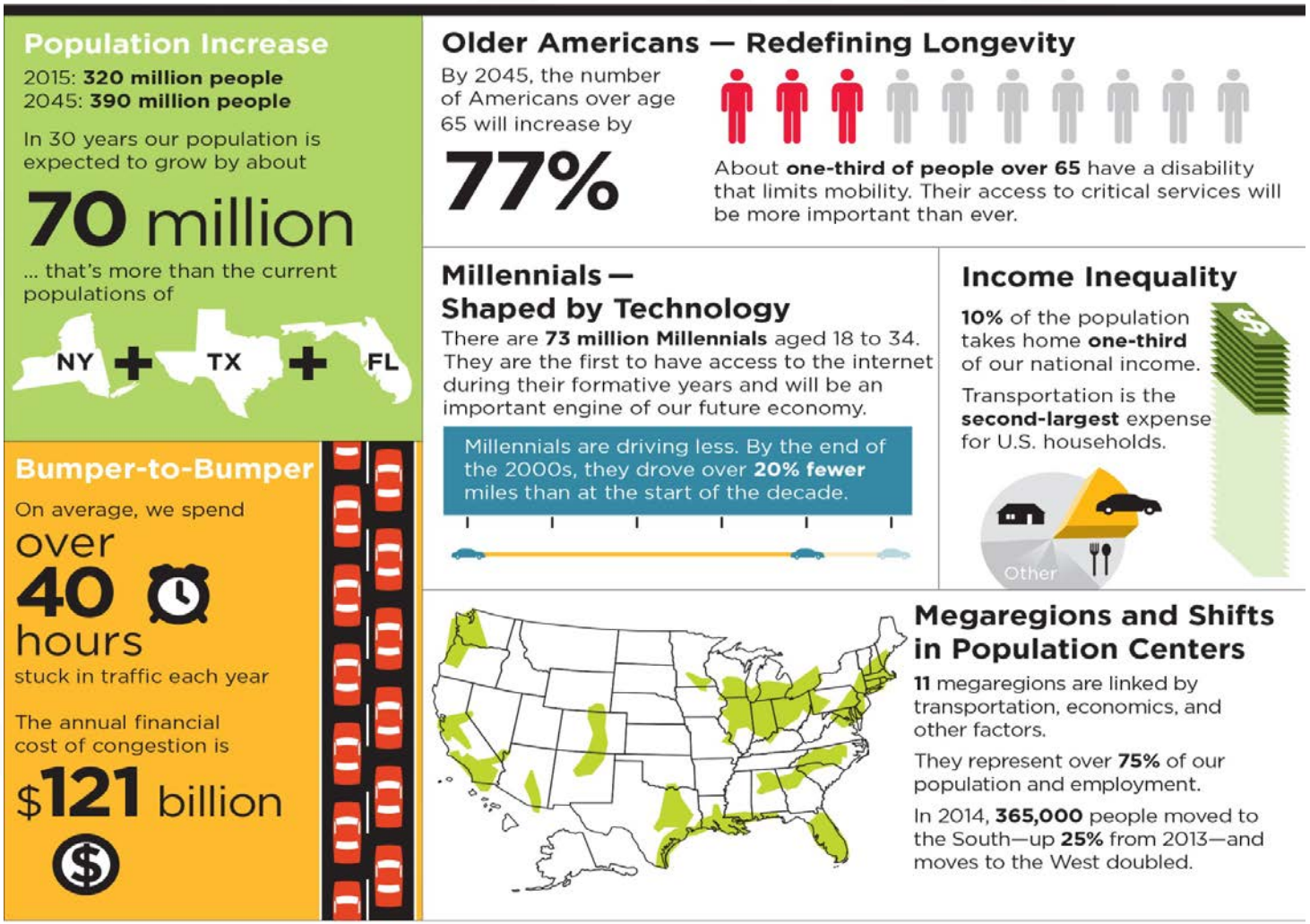
Reality: Demand is Greater than Supply



Trends: How We Move …



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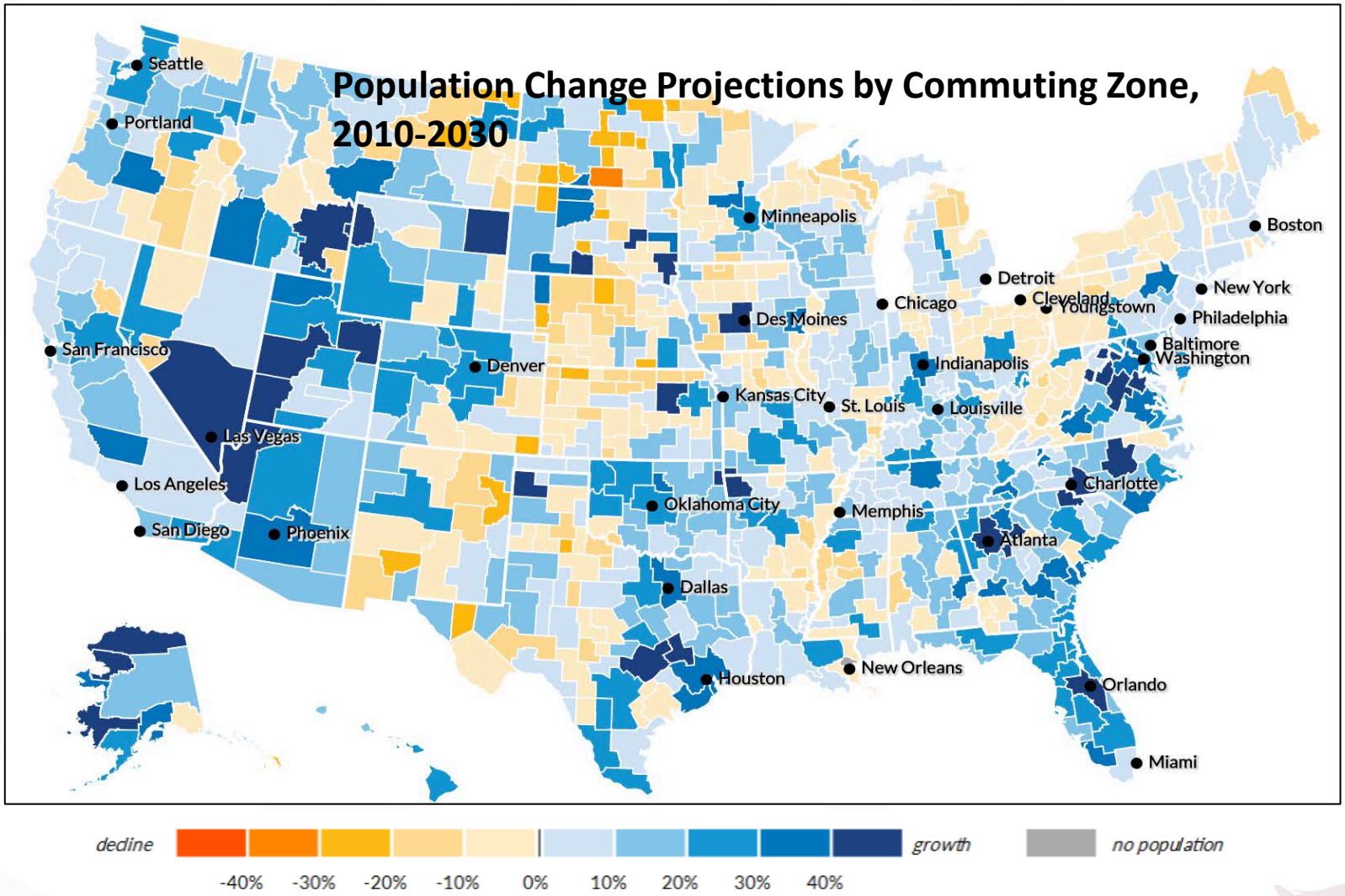
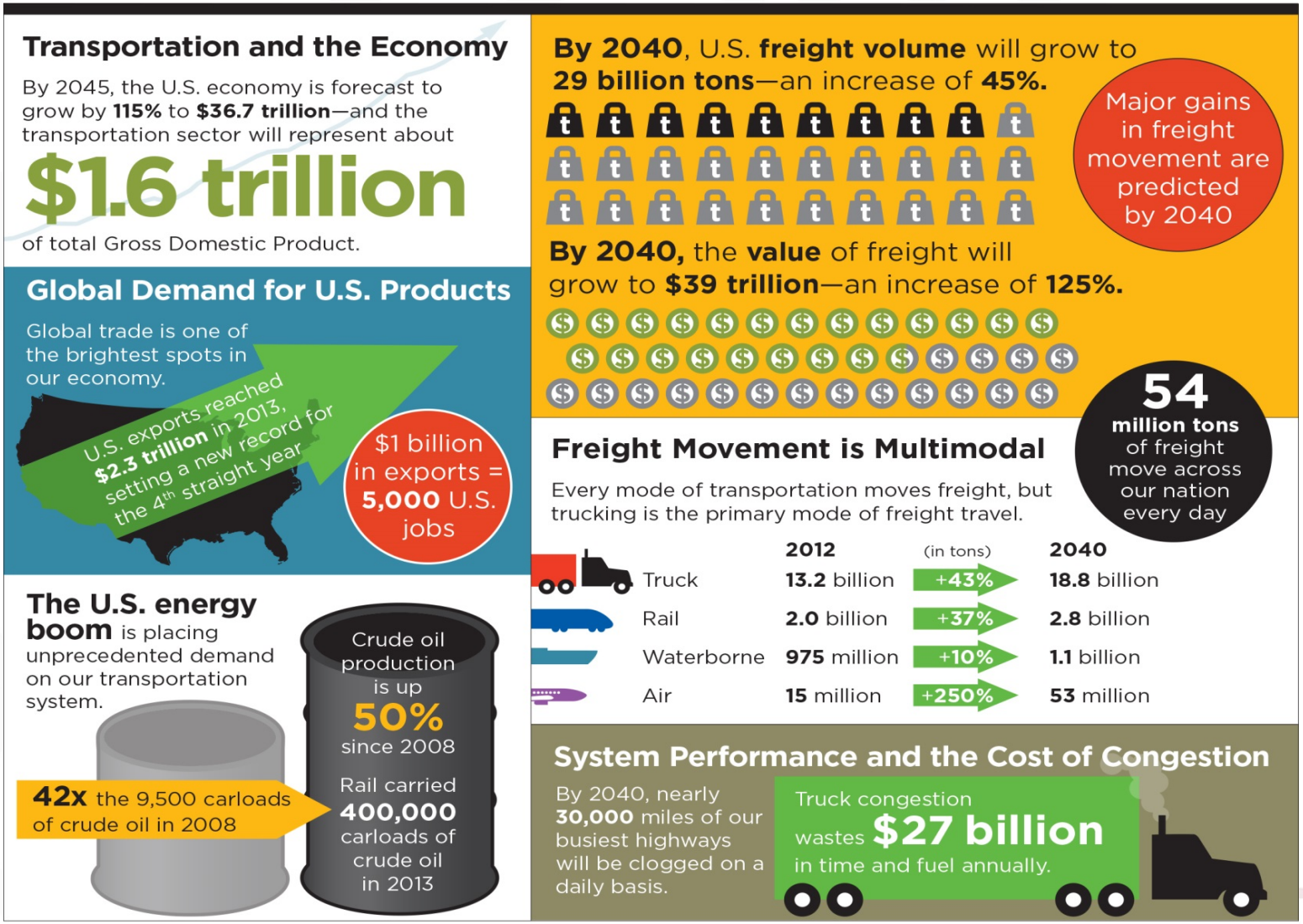


Trends: How We Move Things …



Trends: How We Move Things better

More and more, the transportation sector is relying on data to drive decisions, and on technology to reimagine how we move people and goods.

Connected Vehicles

Vehicles that communicate are the latest innovation in a long line of **successful safety advances**.

The motor vehicle fatality rate has dropped by

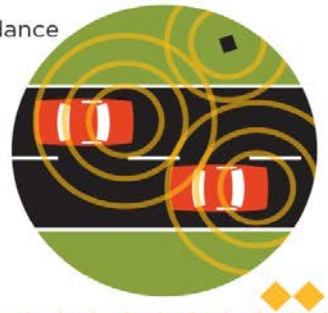
80%

over the past 50 years.

Connected vehicles and new crash avoidance technology could potentially address

81%

of crashes involving unimpaired drivers.



Robotics

Advances in robotics are changing transportation operations and will impact **the future transportation workforce**.

Robots will perform vital transportation functions, such as critical infrastructure inspection.

NextGen

GPS and new technologies are leading to a **safer, more efficient** U.S. airspace.

By 2020, **one-second updates** will pinpoint the **aircraft location and speed** of 30,000 commercial flights daily.

Real-time Travelers

Mobile access to everything from **traffic data** to **transit schedules** informs our travel choices.

90% of American adults own a mobile phone.

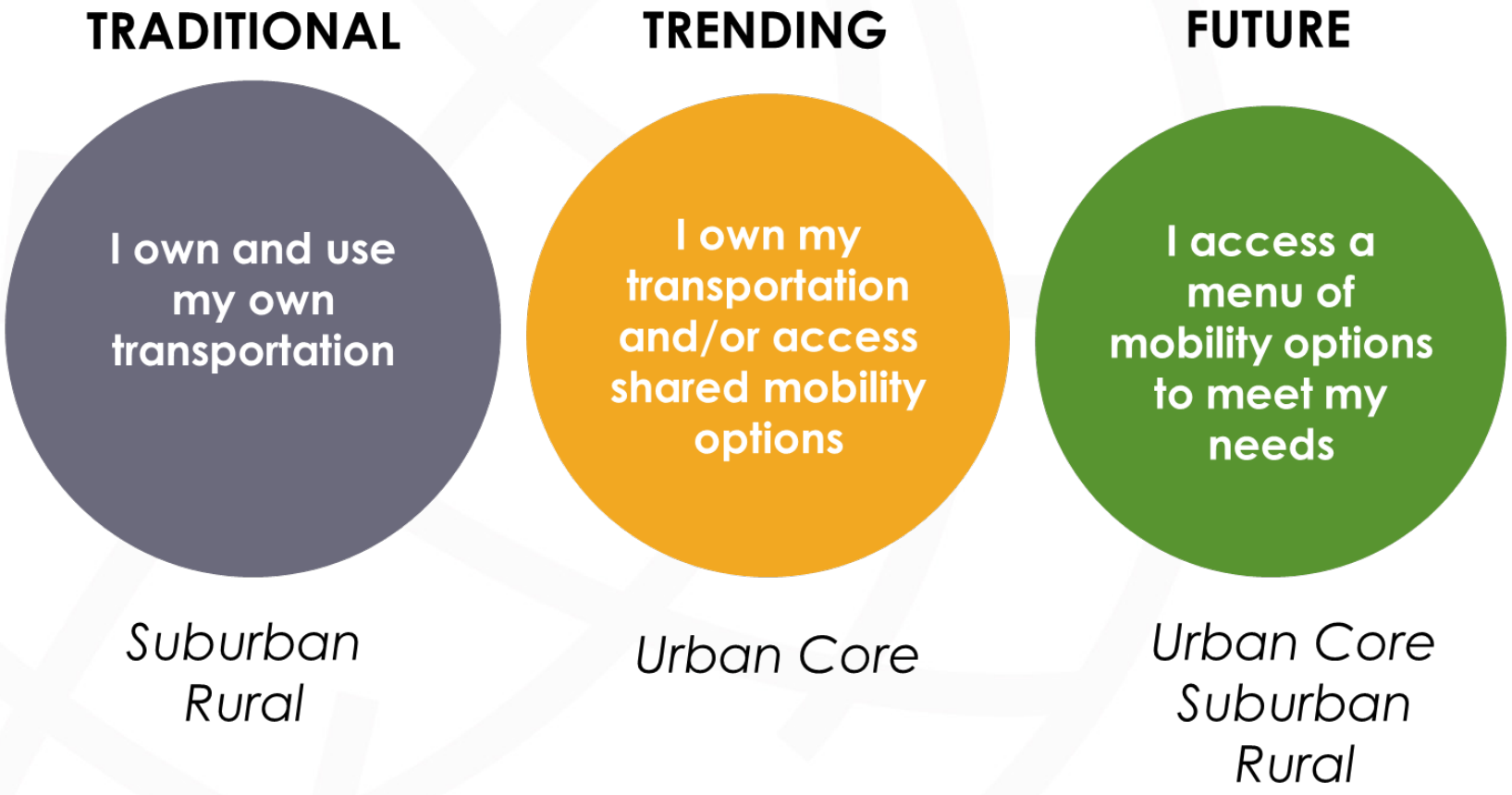
20% use their phones for **up-to-the-minute** traffic or transit information.

Smartphones are regularly used for **turn-by-turn navigation**.

Big data is all around us. Global data generated is projected to grow by **40%** annually.

Data enables innovative transportation options, such as **car-sharing**, **ride-sharing**, and **pop-up bus services**, and more **rapid delivery of goods**.

SHIFTING TRANSPORTATION NORMS



Source: Shared Use Mobility Center

USDOT Mobility on Demand (MOD) Vision

- Traveler Centric/Consumer Driven
  - Quality and Carefree personal mobility choice for individuals
- Data Connected/Platform Independent
  - Technology doesn't change the MOD vision
- Mode Agnostic/Multimodal
  - ALL modes and resources to support personal mobility choice
- USDOT Intermodal Offices Collaboration

Role of PUBLIC Transportation

MOBILITY AS A **SERVICE**

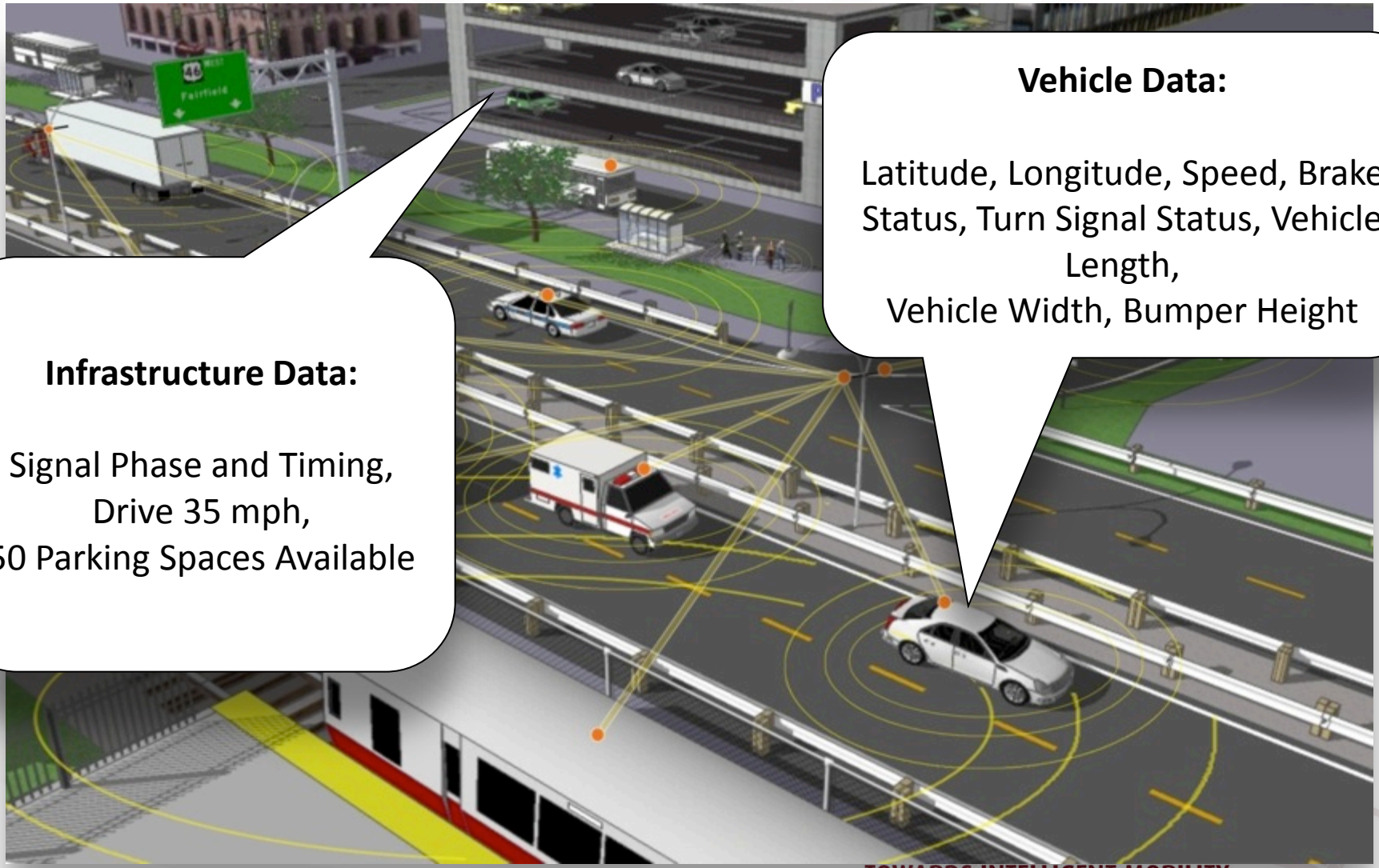
What is Mobility on Demand (MOD)?

- Long term strategic vision for a multimodal, integrated and connected transportation network system.
- A concept which imagines mobility as a commodity and a service.

- Conceptual Notions of MOD:
  - Promotes choice in personal mobility
  - Promotes Intelligent Transportation Systems
  - Advances connected vehicles
  - Advances vehicle automation
  - Leverages emerging technologies
  - Leverages data exchange
  - Encourages multimodal connectivity
  - Encourages system interoperability

A New ~~Transit~~ Intermodal Mobility Concept

Fully Connected Vehicles

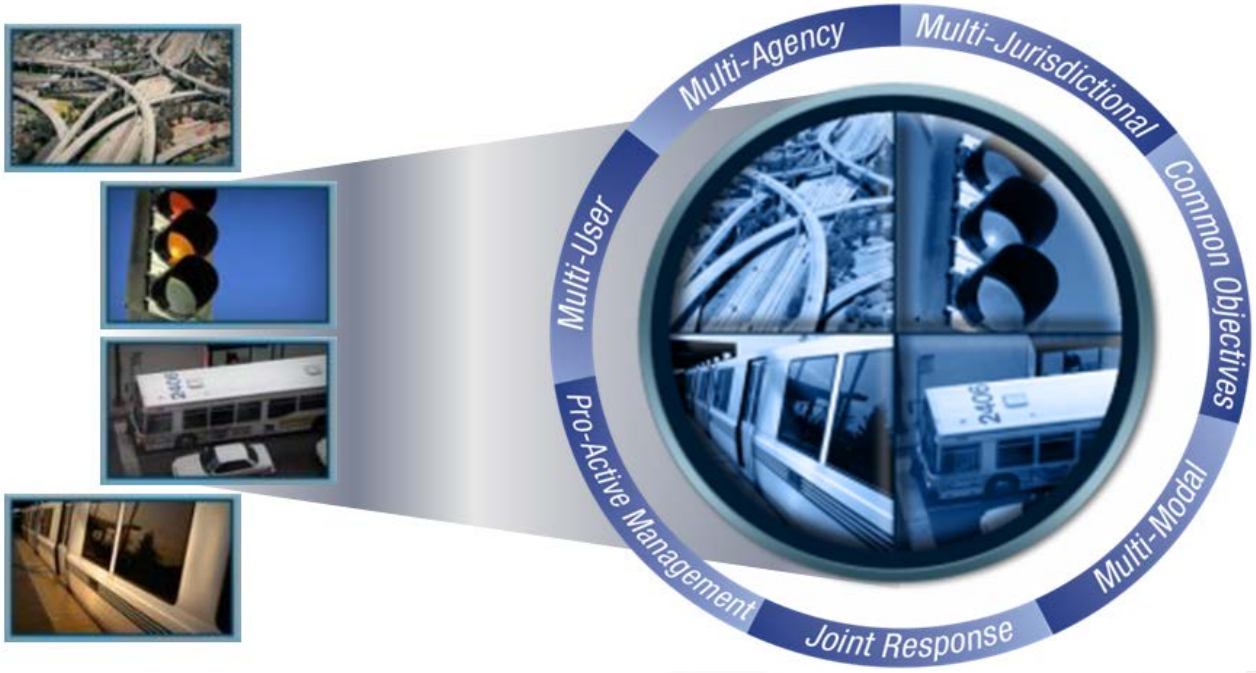


Connected Travelers

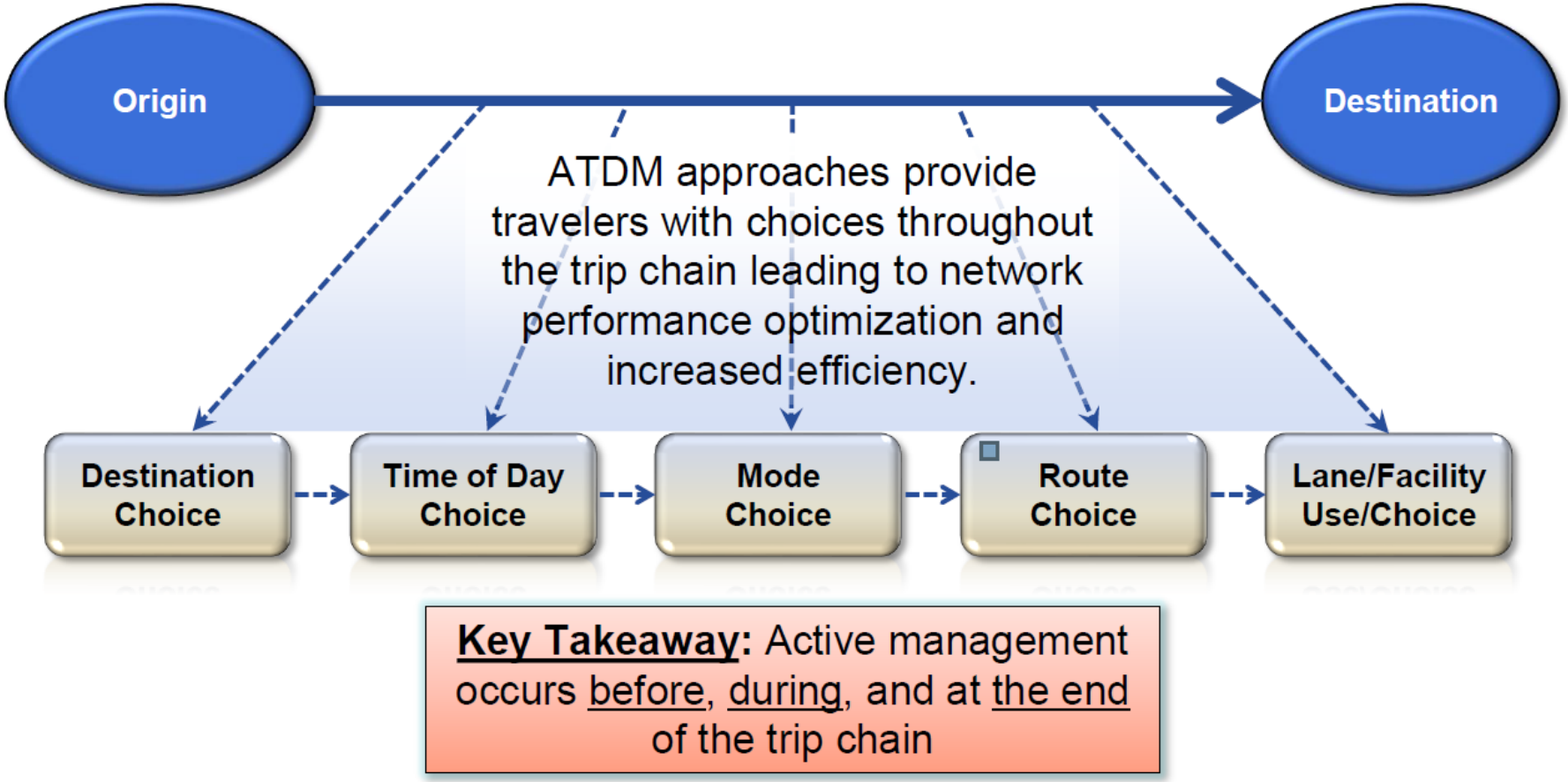
A system of "connected vehicles", roads and infrastructure, and mobile devices will provide a wealth of transportation data, from which innovative and transformative applications will be built. These apps will make travel not only safer, but smarter and greener. The possibilities are boundless.

Integrated Corridor Management

An opportunity exists to realize significant improvements in the efficient movement of people and goods through **integrated** and **proactive** management of major multimodal transportation corridors



Active management throughout the Trip Chain



Key Takeaway: Active management occurs before, during, and at the end of the trip chain

Stakeholders

Who's here today?

Who's missing?

- Academia
- Professional Organizations
- Roadway Agencies
- Planning Organizations
- Private Sector
- Transit Agencies
- Activity Centers
- Fleet Operations
- Public Safety
- Other agency departments
- **Traveler**

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